Changes to the Draft EIS that, combined with the Draft EIS, constitute the Final EIS for the Condon Wind Project.

[AMEND DEIS] *Section 1.2—Need for Action, add paragraph 2:*
Technologies like wind power generation can help displace additions to the power system that might otherwise come from fossil fuel combustion or hydro-powered generation. Wind power can help meet energy needs without additional emissions of greenhouse gases. The Condon Wind Project is an opportunity to satisfy consumer demand for increasing the amount of renewable energy resources in the region's power supply.

[AMEND DEIS] *Figure 2.1-3—Turbine Features, 600 kW, replace with figure that follows this page.*

[AMEND DEIS] *Section 3.3.5—Environmental Consequences—No Action Alternative, replace section with:*
Under the No Action Alternative, the potential impacts to geology, soils, or from seismic activity at the project site would remain the same as under present conditions, without the influence of the proposed project. Energy resources built instead of the proposed project could have impacts to the geology, soils, or from seismic activity in the project area. The intensity of impact would depend on the location of those energy resources.

[AMEND DEIS] *Sections 3.4.4.2, 3.4.4.3 and 3.4.4.4, delete DEIS sections and replace with:*

3.4.4.2 Impacts during Construction

No impacts on fish or other aquatic resources are expected during construction of either phase 1 or phase 2 of the proposed project. Because no fish-bearing streams are located on the project site, neither fish nor fish-bearing streams would be directly impacted during construction. The only potential impact would occur if creeks draining the project site experienced changes in water flow patterns or water quantity/quality, thus indirectly affecting reaches of creeks downstream. However, as described in Section 3.7 for water resources, such impacts are highly unlikely. In addition, the project would have no effect on downstream woody debris, seed deposition, nutrient cycling, or other key fish habitat components. The proposed action includes several best management practices to protect water quality and prevent erosion, which would in turn protect fish. Therefore phase 1 and phase 2 of construction would have no effect on fish species listed under the ESA or otherwise result in violations of local, state, or federal regulations related to fish and fish habitat (Hoefer pers. comm.).

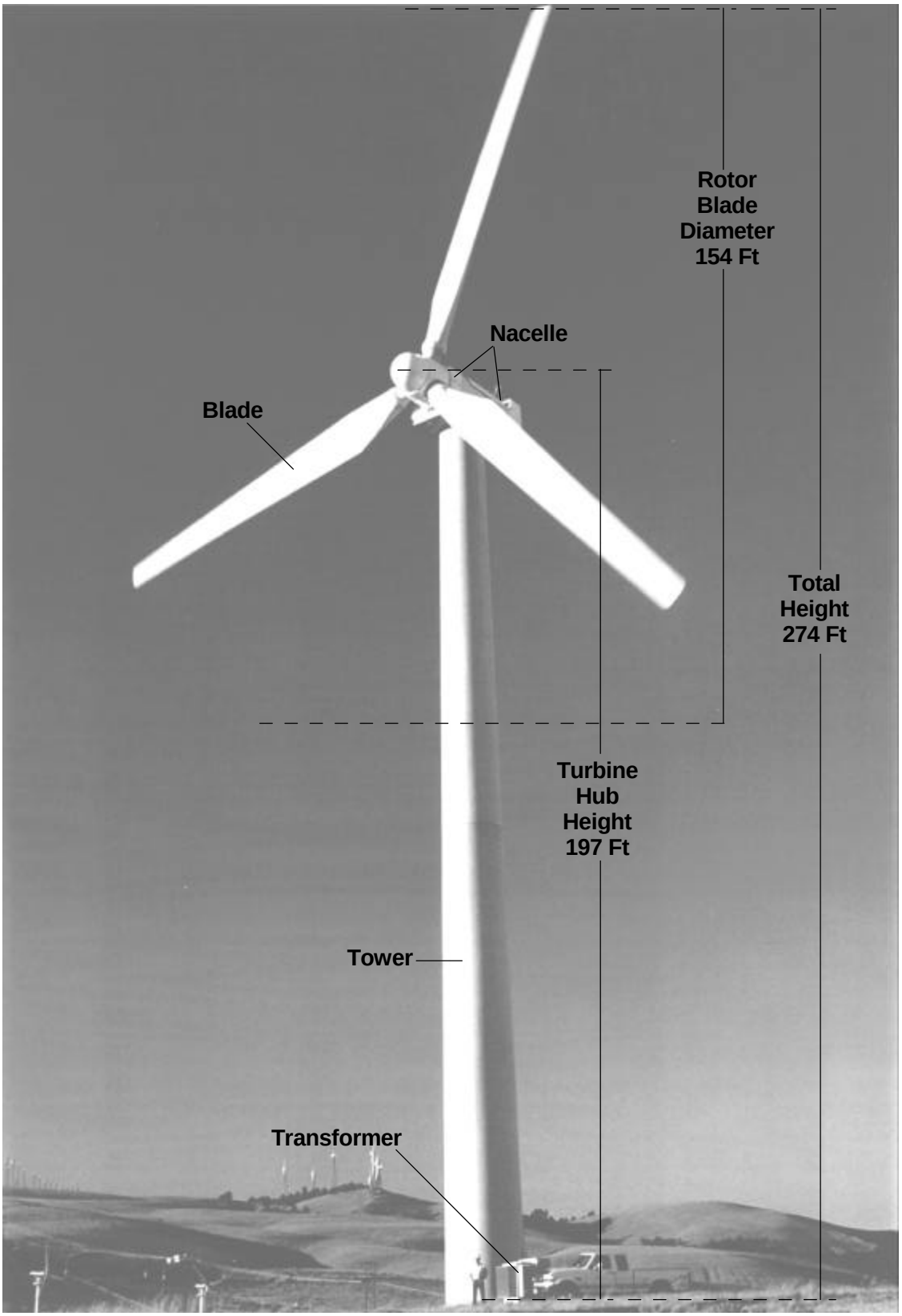
3.4.4.3 Impacts during Operation, Maintenance, and Decommissioning

Operation and maintenance would have no effect on fish or other aquatic resources. Since fish-bearing streams are absent from where project activities would occur, only downstream impacts in streams receiving drainage from the project site are possible, and these are highly unlikely. Therefore, project operation and maintenance would have no effect on fish species listed under the ESA or otherwise result in violations of local, state, or federal regulations related to fish and fish habitat.

Decommissioning impacts would be similar to those described earlier for construction; no impacts on fish are expected.

3.4.4.4 Mitigation

No mitigation measures are required because no effects on fish have been identified.



E:/GIS_Projects/Seawest_Condon/Projects/SeaWest Condon.apr 08/08/01

Source: Seawest, 2000.

Figure 2.1-3
Turbine Features, 600-KW

[AMEND DEIS] *Section 3.4.5—Environmental Consequences—No Action Alternative, replace section with:*
Under the No Action Alternative, fish in the project vicinity would continue to exist without the influence of the proposed project. However, other energy resources (most likely CTs) would be built in the region. These resources could be sited in areas where they would have effects on fish populations including threatened, endangered, or sensitive species.

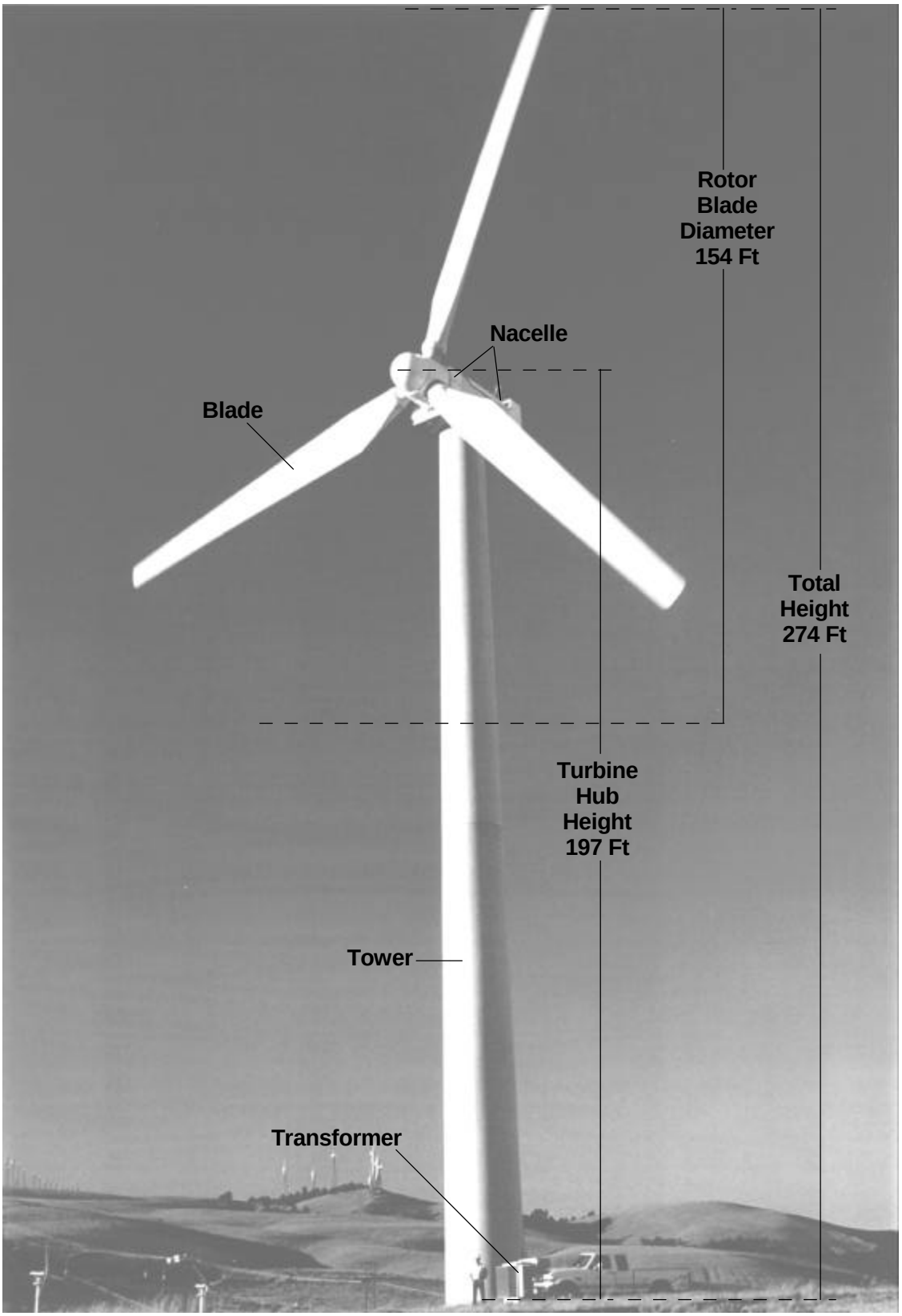
[AMEND DEIS] *Section 3.6.3.4—Migrant Passerine Use, correct second reference in third paragraph:*
Most passerines undertake long-distance migration flights at night, typically flying at altitudes well above the highest reach of wind turbines (Bellrose in Alerstam 1990). However, flight altitudes do occasionally fall within the height of wind turbines, and mortality of migrating passerines has been reported at existing wind resource areas (Johnson et al. 2000; Erickson et al. 2000), although no large mortality events like those reported for communication towers (Kerlinger 2000) have been reported at wind projects.

[AMEND DEIS] *Section 3.6.4.3—Birds, replace first paragraph with:*
With current technology, avian mortality from collisions with the turbines and meteorological tower guy wires is an unavoidable consequence of wind resource development such as the proposed project. It follows that some avian mortality would occur at the project site over the life of this project. The average number of birds killed per year for the proposed project from collisions with wind turbines is expected to be in the range of 25 to 115 individuals for phase 1, and an additional 25 to 115 individuals for phase 2 (0.6 to 2.8 birds/turbine/year for the full project). This average is based on average per-turbine impacts reported at two similar wind projects—the Vansycle (Umatilla County, Oregon) and Buffalo Ridge (Minnesota) wind resource areas—where a combined total of 5 years of mortality data have been systematically gathered. These two projects are appropriate for comparison to the proposed project since (1) they use similar turbine designs (tubular steel towers, relatively large rotor diameter and height); (2) they are located in open agricultural areas; (3) they are located on ridges perpendicular to the primary wind direction; and (4) raptors and other birds occur in similar abundance.

[AMEND DEIS] *Section 3.6.4.3—Birds, correct reference in fourth paragraph to read:*
At the Buffalo Ridge site, the mean number of avian fatalities was 2.83 birds/turbine/year (Johnson, et al. 2000). As with Vansycle, most avian fatalities (just over 75 percent) were passerines. Other fatalities detected were waterfowl, waterbirds, upland gamebirds, shorebirds, and one raptor.

[AMEND DEIS] *Section 3.6.4.3—Birds, replace seventh paragraph with:*
Due to the seasonal timing of reported fatalities, it appears likely that many of the fatalities are migrants, and most passerines migrate at night. A total of nineteen raptor nests were found within a 10-mile radius of the avian study area plots (1.4 nests/10,000 hectares). This density is extremely low compared to density found in similar surveys at other wind projects, including the Vansycle/Stateline wind site in Oregon (3.9-7.8 nests/10,000 hectares).

[AMEND DEIS] *Section 3.6.4.3—Bats, replace first paragraph with:*
Based on per-turbine estimates found at the Vansycle and Buffalo Ridge sites, annual bat mortality for the proposed project could be in the range of 30 to 80 individual bats for the first phase and an additional 30 to 80 individuals for the second phase (0.7 to 1.9 bats/turbine/year for the full project). Individuals killed are most likely to be hoary, silver-haired, and little brown bats, based on the species found at the Vansycle site.



E:/GIS_Projects/Seawest_Condon/Projects/SeaWest Condon.apr 08/08/01

Source: Seawest, 2000.

Figure 2.1-3
Turbine Features, 600-KW

[AMEND DEIS] *Section 3.6.5—Environmental Consequences—No Action Alternative, replace section with:*
Under No Action, the project would not be built, and the wildlife of the study area would continue without influence of the proposed project. Energy resources built instead of the proposed project could have wildlife impacts. The intensity of impact would depend on the location of those energy resources.

[AMEND DEIS] *Section 3.7.5—Environmental Consequences—No Action Alternative, replace section with:*
Under the No Action Alternative, the project site would likely remain as farmland used for non-irrigated agriculture. Potential impacts to water resources and wetlands associated with the study area would remain the same as under present conditions. Energy resources built instead of the proposed project could have water or wetlands impacts. For example, CTs use an average of 3.4 acre-feet of water per MW per year. The intensity of impact would depend on the location of those energy resources.

[AMEND DEIS] *Section 3.9.4.5—Mitigation, replace third bullet statement with:*
- coordinating with Oregon and federal managers of recreational facilities and areas, as well as the Oregon Department of Transportation, to determine the feasibility and safety of providing signs directing sightseers along ORE206 to public viewing places that could provide safe viewing areas of the project site; and

[AMEND DEIS] *Section 3.10.3.6—Electrical Services, add paragraph 2:*
Output from the project would be melded with output from BPA's other energy resources – it would not be earmarked or specifically identifiable as the energy marketed to Gilliam County or any other BPA customers. There would be no impact on BPA's rates because the cost of purchasing output from the Condon Wind Project was included in BPA's rates for the fiscal year 2002-2006 rate period. Only if there is a surplus of power can BPA sell outside its Pacific Northwest service territory.

[AMEND DEIS] *Section 3.10.4.3—Impacts of Operation and Maintenance, replace paragraph 1 with:*
During operation of the project, no impacts are expected to housing, and only minor adverse impacts could occur to emergency services and schools. Beneficial impacts on the local economy would result from increased tax revenues and the purchase of goods and services. In addition, acquisition of the output of the project by BPA would help reduce BPA's energy resource deficit**.** Electricity produced by the project would flow into the Northwest power grid and would be used to serve regional loads, exchanged with other regions, or sold as surplus power (if available).

BPA is a wholesaler of energy to many retail and public utility distributors in the region, including the two that serve Gilliam County: Columbia Basin Electric Cooperative and PacifiCorp. There would be no impact on the cost of power bought by the local utilities from BPA because the cost of purchasing output from new renewable energy sources like the Condon Wind Project was included in BPA's rates for the fiscal year 2002-2006 rate period. Regardless, the annual cost of power from the Condon Wind Project would be extremely small compared to BPA's annual budget, which exceeds $2 billion. Therefore, there would be no impact from the project on power rates in Gilliam County or elsewhere in the region.

[AMEND DEIS] *Section 3.10.4.3—Impacts of Operation and Maintenance, replace paragraph 8 with:*
Gilliam County has indicated its intention to file an Enterprise Zone request to include areas that would encompass the proposed project. If the request is approved, on a year to year basis, partial and

temporary property tax relief, over the initial several years, could somewhat reduce operating costs for the owner of the project during those years.

[AMEND DEIS] *Section 3.10.5—Environmental Consequences—No Action Alternative, replace section with:*
Under the No Action Alternative, the socioeconomic conditions in the project vicinity and surrounding area would continue without influence from the proposed project. The county would not benefit from the tax revenues and employment opportunities brought by the project. Energy resources built instead of the proposed project could have socioeconomic impacts. The intensity of impact would depend on the location of those energy resources.

[AMEND DEIS] *Section 3.11.5—Environmental Consequences—No Action Alternative, replace section with:*
With the No Action Alternative, transportation in the project vicinity would continue without influence of the proposed project. Roads that would have been improved for the project would be left unimproved. Energy resources built instead of the proposed project could have transportation impacts. The intensity of impact would depend on the location of those energy resources.

[AMEND DEIS] *Section 3.13.5—Environmental Consequences—No Action Alternative, replace section with:*
Under the No Action Alternative, existing background noise levels in the project site, study area, and project vicinity would continue without influence of the proposed project. Energy resources built instead of the proposed project could have noise impacts. The intensity of impact would depend on the location of those energy resources.

[AMEND DEIS] *Section 3.14.4.3—Impacts during Operation and Maintenance, replace 6th paragraph with:*
Because the project turbines and meteorological towers would exceed 200 feet in height, a Notice of Proposed Construction or Alteration (Form 7460-1) has been filed by the proponent with the FAA. The FAA is evaluating the project and will make recommendations to the proponent regarding possible airway marking, lighting, and other safety requirements which would become part of the project.

[AMEND DEIS] *Section 3.14.4.3—Electric and Magnetic Fields, replace section with:*
Electric and magnetic fields (EMF) are associated with electric transmission and distribution lines. BPA completed an extensive review of EMF in its *Electrical and Biological Effects of Transmission Lines: A Review* in December 1996. Although the study focused on high-voltage transmission lines, it also reviewed related research on distribution lines. In general, reviews of the epidemiological and biological research on EMF consistently conclude that no causal link has been established between EMF and adverse human health effects. However, since most of the studies acknowledge there are still unanswered questions, steps to prevent or reduce exposures are recommended.

Steps to prevent or reduce exposures are not necessary for this project because the nearest residence to any part of the proposed facilities is about 2,000 feet away. The strength of EMF diminishes rapidly as the distance from the source increases. During project operation, the overhead power lines and substation would produce EMF in the immediate vicinity of these facilities. However, no residences are located in the vicinity of the proposed substation. Any fields generated by the transmission line would diminish to background levels within a few hundred feet. Thus, the nearest residence is located beyond the reach of any possible EMF effects. The power generated by the proposed project would not raise background EMF to levels that would be substantially different from existing levels. As a result, there would be no EMF exposure to residences and no significant increase in background levels of exposure to the general public caused by the proposed project.

[AMEND DEIS] *Section 3.14.5—Environmental Consequences—No Action Alternative, replace section with:*
Under the No Action Alternative, existing health and safety risks associated with ongoing agricultural activities and with existing power lines on the project site would continue without influence of the proposed project. Energy resources built instead of the proposed project could have health and safety impacts. The intensity of impact would depend on the location of those energy resources.

[AMEND DEIS] *Section 3.17—Unavoidable Adverse Impacts, replace fourth paragraph with:*
Wildlife: Birds and bats may collide with wind turbines or guy wires on meteorological towers. Annual bird mortality is estimated at between 50 and 230 for the full project (mostly passerines with 0-3 raptors/year). Annual bat mortality is estimated at between 60 and 160 (most likely hoary, silver-haired, and myotis varieties).

[AMEND DEIS] *Chapter 4—Cumulative Impacts, replace chapter with:*
A "cumulative impact" is the impact on the environment that results from the incremental impact of an action, such as this proposed action, when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can also result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

The proposed project is the only wind energy development planned in the Condon area to BPA's knowledge. The size of the Condon project, and of any possible further projects in the Condon area, is constrained by the limitation of available transmission capacity in the area. Expansion of wind facilities in the Condon area is not likely in the near future, if at all. Thus, while further wind projects in the vicinity of Condon are a remote possibility, such additional projects are highly speculative and not reasonably probable at this time. If future additional wind projects were to be developed in the study area or Condon area, and the same siting criteria were applied as were used for the proposed project (such as avoiding wetlands and unstable slopes, and avoiding local avian flyways), then they would have incremental additive increases in effects (beneficial and adverse) similar to the Condon project and proportional to the size of any new projects. No other developments, projects or changes of any type are planned or foreseen in and around the project vicinity that would affect any aspect of the physical and biological environment there. So, no other cumulative impacts are anticipated.

Since the Draft EIS was published, BPA has begun working with another developer in the initial planning phases of determining the feasibility, siting and sizing of a wind project in the north part of Gilliam County, identified as the Wheat Field Wind Project, approximately 19 air miles from the north end of the study area for the proposed Condon project. The Wheat Field project is far enough away to have no cumulative impacts to land use and recreation, geology, fish, vegetation, water resources, cultural resources, visual resources, transportation, air quality, noise, or public health and safety. The only potential cumulative impacts would be to socioeconomic and avian impacts.

If the Wheat Field Wind Project is developed, the county would benefit from additional employment opportunities, increased tax revenues and local purchases of goods and services. Additional increases in demand on local services such as fire, police, and medical facilities may be an adverse cumulative impact of having both projects operating in the same county.

If the Wheat Field Wind Project is developed, additional bird and bat mortality within 20-25 miles of the Condon Project may occur due to collisions with turbines and meteorological towers at that project site. It is very speculative to provide mortality projections for a future wind project without additional information on the habitat, bird and bat utilization, and species composition of the project site. However, it can be assumed that additional bat and avian mortality would occur, and an

undetermined number of these would be migrants that could possibly pass through both wind project areas during migration. For the most part, resident birds would not use both areas because the distance between the two projects is farther than the usual range of most resident birds. More specific projections, reflecting the results of the avian and bat studies undertaken for the Wheat Field Project, would be provided during the environmental review process for that project.

[AMEND DEIS] *Chapter 6—References, add:*

Lee, J.M. 1996. Electrical and Biological Effects of Transmission Lines: A Review. U.S. Department of Energy, Bonneville Power Administration. Portland, OR

The following pages replace pages ES-3 and ES-5 in Appendix C—Technical Baseline Study – Executive Summary.

10,000 hectares within the 10-mile radius of the SA during the 2000 surveys. This density is low compared to densities estimated from similar surveys at the Vansycle/Stateline wind site in Oregon (3.9 to 7.8 nests per 10,000 hectares) and Foote Creek Rim in Wyoming (7 nests per 10,000 hectares).The raptor species observed during aerial surveys included red-tailed hawks (4 active nests), unknown raptors (4), Swainson's hawks (3), and prairie falcons (2). Great horned owl and golden eagle nests were observed beyond the 10-mile radius. Common ravens were also recorded during the aerial survey and were the most abundant nesting species observed (6 nests) of the known nests.

During the avian use plot surveys a total of 50 bird species or best possible identification was recorded. Horned lark comprised 40 percent of the total birds counted, raptors 11 percent, western meadowlark 10 percent, waterbirds 3 percent, and upland game birds 1 percent. The other 35 percent of the total consisted of mostly other species of passerine birds such as sparrows, unidentified passerines, blackbirds, and common ravens, the only corvid observed. American kestrel was the most frequently observed raptor, followed by unidentified buteos, red-tailed hawk, northern harrier, rough-legged hawk, unidentified raptors, and golden eagle. Most of the "unidentified" birds were those recorded farther than 600 meters from the observer.

Overall, more species were observed in the SA during the spring and summer (26 and 28 respectively) than during the fall (15) and winter (14). However, the number of species/ unique groups identified per 15-minute plot survey was significantly higher in the spring than during the other seasons. There were no statistically significant differences between indices of use by any bird group or season between the plots within the proposed project area (the PA, where wind turbine development is proposed) and the plots outside the proposed project area (the OSPA). An analysis of seasonal differences within all of the plots combined (the Condon Analysis Area or CAA, consisting of the plots in the PA and OSPA) revealed that corvid use was significantly higher during the fall than other seasons. Raven use was highest of all large bird species and groups in the CAA in the summer, fall, and winter and was second-highest in the spring. Raven use in the fall was approximately ten times that of the next species (abundant in this case refers to an index of use, not true abundance). Raptor use was highest during spring but not quite significantly different from the other seasons. Use by the horned lark/meadowlark group was significantly lower during the summer than all the other seasons. Combined use by all birds was significantly higher in summer than other seasons.

The ten large bird species, whose use in at least one season was in the top ten species, were the common raven, American kestrel, ring-necked pheasant, northern harrier, long-billed curlew, red-tailed hawk, gray partridge, golden eagle, rough-legged hawk, and turkey vulture. Small bird species in the "top ten" in at least one season were the horned lark, western meadowlark, vesper sparrow, and savannah sparrow.

sites but myotis (which could not be identified to species), big brown, and State Sensitive silver-haired bats were detected. Considerable activity at stream and pond sites at and in the vicinity of the SA was detected, but only myotis species were identified. Myotis species were also recorded at various mobile sample points: the area with the most activity was a riparian area along Ferry Canyon. No bats were captured by mist netting at ponds. Although myotis calls could not be definitively identified to species, most of the calls recorded were typical of little brown bats and several were typical of California myotis.

Small birds most often observed in the zone of risk were horned larks, blackbirds (unidentified and Brewer's blackbirds), western meadowlarks, swallows (cliff and unidentified), and American goldfinches. Horned larks and blackbirds were both estimated to be greater than seven times more likely to be found in the zone of risk than any other small birds. Note that of these species, only a horned lark was represented in the list of carcasses found during the one-year monitoring study at the Vansycle Wind plant in northeast Oregon, and it may have been killed by a car collision (Erickson et al. 2000). Horned lark was the most commonly observed passerine at the Foote Creek Rim Wind plant in Wyoming, had the highest risk index, and was the most abundant turbine-related collision observed.

Large birds most likely to be observed in the zone of risk are rough-legged hawks, American kestrels, common ravens, and northern harriers. The golden eagle is estimated to be 10 times less likely to be observed in the zone of risk than American kestrels and approximately 20 times less likely than common ravens.

Raptor relative use estimates for the Condon SA were compared to estimates from other wind plants where comparable data exists. Raptor use estimates were taken from three studies where data were collected from fixed-radius survey plots using protocols very similar to the protocol used on the Condon study. Monitoring studies included the Buffalo Ridge Wind Resource Area (WRA), Minnesota in 1996-1999 (Johnson et al. 2000a); the monitoring studies at the Foote Creek Rim WRA in 1995, 1997, 1998 and 1999 (Johnson et al. 2000b, 2001); and the Vansycle Avian Baseline Study (URS 1997). Due to differences in the time of surveys and possible differences in the quality of viewsheds out to 800 meters, some biases may exist.

Of the four sites, the estimated raptor use is highest during the spring, summer and fall at the Foote Creek Rim Wind Plant. During the winter, raptor use is highest at the Vansycle Wind Plant. Otherwise, similar use estimates exist for the CAA, the PA, the Vansycle WRA, and the Buffalo Ridge Project area, with none of these studies having consistently higher or lower raptor use estimates across all seasons. No turbine-related raptor fatalities were observed during a one-year monitoring effort at the Vansycle Wind Plant (Erickson et al. 2000) and only one red-tailed hawk fatality was found during a 5-year monitoring effort at the Buffalo Ridge WRA. Three turbine-related raptor fatalities (3 American kestrels, 1 northern harrier and 1 short-eared owl) were observed at the Foote Creek Rim Phase I Windplant (69 turbines) during two years of